

WHAT IS CLAIMED IS:

1. A construction method for an exhaust heat recovery boiler which is provided with a heat exchanger tube bundle arranged inside a casing forming a gas duct in which exhaust gas flows almost horizontally to generate steam, wherein

a necessary size and number of modules each of which is obtained by housing a member including heat exchanger tube panels each comprising the heat exchanger tube bundle and headers for the heat exchanger tube bundle, an upper casing provided above the heat exchanger tube panel, and support beams for the heat exchanger tube panel provided on the upper surface of the upper casing in a transportation frame, are prepared according to design specifications of the exhaust heat recovery boiler,

at a construction site of the exhaust heat recovery boiler, structural members for supporting the modules including the ceiling part support beams and side casings and a bottom casing of the exhaust heat recovery boiler except for the ceiling part are constructed in advance, and

by suspending each module from above between respective adjacent ceiling part support beams at a construction site of the exhaust heat recovery boiler, heat exchanger tube panel support beams of each module are disposed at the set heights of the ceiling part support beams, and both support beams are

connected and fixed to each other via connecting steel plates.

2. The construction method for an exhaust heat recovery boiler according to Claim 1, wherein

at a construction site of the exhaust heat recovery boiler,  
5 surfaces of each module which will be set perpendicular to the gas flow are set to the upper and lower sides and each module is temporarily fixed on a standing jig,

the standing jig on which each module has been placed is erected by a crane at a position adjacent to the side casing  
10 1a or 1b of the exhaust heat recovery boiler so that the lengthwise direction of the standing jig turns toward the vertical direction, and next,

surfaces of each module which will be set perpendicular to the gas flow are arranged so as to be along the side casing  
15 1a or 1b of the exhaust heat recovery boiler and the standing jig is temporarily fixed to the side casing,

and the target to be lifted by the crane is changed into the heat exchanger tube panel support beams of the module placed inside the standing jig temporarily fixed to the side casing,  
20 the module is lifted up and taken off the standing jig, and the module lifted by the crane is suspended between adjacent ceiling part support beams of the supporting structural members for the modules of the exhaust heat recovery boiler from above.

3. The construction method for an exhaust heat recovery boiler according to Claim 1, wherein after the heat exchanger tube panel support beams of the respective modules are disposed at the heights of the ceiling part support beams and the support  
5 beams are connected and fixed via first connecting steel plates, gaps created between the upper casings of the respective modules and the ceiling part support beams are closed by second steel plates, and the upper casings, the ceiling part support beams, and the second steel plates are connected by means of welding.

10 4. Heat exchanger tube panel modules for an exhaust heat recovery boiler construction, wherein one module unit is composed of a heat exchanger tube panel module that comprises a member including heat exchanger tube panels each of which comprises a heat exchanger tube bundle and headers for the heat  
15 exchanger tube bundle, an upper casing provided above the heat exchanger tube panel, and support beams for the heat exchanger tube panel provided on the upper surface of the upper casing, and a transportation frame that is formed of a rigid body and houses the module, and vibration isolating supports which are  
20 provided at predetermined intervals on the heat exchanger tube panels of the one module unit to prevent contacts between adjacent heat exchanger tubes in a direction crossing the lengthwise direction of the heat exchanger tube bundle.

5. The heat exchanger tube panel modules for an exhaust heat recovery boiler construction according to Claim 4, further comprising shake preventive fixing members provided between the ends of the vibration isolating supports and the transportation frames.

6. The heat exchanger tube panel modules for an exhaust heat recovery boiler construction according to Claim 4, wherein baffle plates for gas short pass are attached to both side surfaces along the gas flow of each heat exchanger tube panel, and between two heat exchanger tube panels arranged so as to be adjacent to each other in a direction orthogonal to the gas flow, a gas short pass preventive plate is attached to one side surface of which is connected to the baffle plate of one of the heat exchanger tube panels, and the other side surface of which comes into contact with the baffle plate of the other heat exchanger tube panel.

7. The heat exchanger tube panel modules for an exhaust heat recovery boiler construction according to Claim 6, wherein the side surface of the gas short pass preventive plate which comes into contact with the baffle plate of the heat exchanger tube panel is folded toward the upstream side of the gas flow.